

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

A.L.M. HOLDING CO.,  
ERGON ASPHALT & EMULSIONS, INC.  
and  
MEADWESTVACO CORP.,

Plaintiffs,

v.

AKZO NOBEL SURFACE CHEMISTRY  
LLC,

Defendant.

Civil Action No. 13-cv-1069-GMS

**AKZO NOBEL SURFACE CHEMISTRY LLC'S OPENING *MARKMAN* BRIEF**

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Akzo Nobel Surface Chemistry LLC (“Akzo”), respectfully submits this Opening *Markman* Brief in support of its proposed constructions for the disputed claim terms in U.S. Patent Nos. 7,815,725 (“the ’725 patent”) and 7,981,466 (“the ’466 patent”). *See* Joint Appendix of Intrinsic Evidence (“JA”) Ex. A and JA Ex. B, respectively.<sup>1</sup>

## **I. INTRODUCTION**

The ’725 patent claims are directed to asphalt paving compositions, including previously known paving compositions, comprising a binder, an aggregate and one or more lubricating additives. According to the patents, because of the lubricating additive, the paving compositions can be produced and paved at temperatures at least 30° F lower than what the patent refers to as “comparison paving composition[s]”. The “comparison paving compositions” include asphalt paving compositions identical to those claimed except for the absence of lubricating additives. *See, e.g.*, JA Ex. A at A-15 (claim 1). The lubricating additives can be surfactants, non-surfactants, acids, or combinations thereof, including such additives that were previously known and used in asphalt paving compositions. *Id.*; *see also* A-8-9, A-12 (col. 3, l. 33–col. 6, l. 32; col. 12, ll. 20-65). In fact, the majority of the patent examples use Akzo’s E-6 asphalt additive as the surfactant lubricating additive in the asphalt paving compositions. But Akzo’s E-6 surfactant has been marketed and used as an asphalt additive since at least 2003, about four years before the earliest claimed priority date of the ’725 and ’466 patents.<sup>2</sup> The patentee acknowledges that the compositions of the asserted patents are not new, but asserts that the patentee was first to realize that such previously known compositions containing lubricating additives can be produced and

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<sup>1</sup> Claims 1-4, 9-10, 13-15, 19-23, 25-28, 33-34, 37-39 and 43-48 of the ’725 patent and claims 1-4, 12-13 and 17-21 of the ’466 patent have been asserted against Akzo.

<sup>2</sup> Akzo does not make or pave with asphalt paving compositions. Akzo makes additives for use in asphalt compositions, and has supplied additives to the industry for decades.



paved at temperatures lower than such compositions that do not contain lubricating additives. JA Ex. A at A-7-8 (col. 3, ll. 52-58; col. 1, ll. 38-50); *see also* JA Ex. A at A-15-16; JA Ex. B at A-30-31 (claims).

The other patent-in-suit, the '466 patent, is a divisional of the '725 patent, and thus has the same specification as the '725 patent. The '466 patent claims processes for making and paving with previously known asphalt paving compositions including binder, aggregate and one or more lubricating additives.

Upon commencement of this litigation, Akzo filed requests in the United States Patent and Trademark Office ("PTO") for reexamination of the '725 and '466 patents on December 20, 2013 and January 15, 2014, respectively. The PTO granted Akzo's requests, finding substantial new questions of patentability as to all the claims of both patents. On July 14, 2014, the PTO issued an office action in the reexamination of the '725 patent, and rejected 49 of the 52 patent claims as unpatentable on multiple grounds. JA Ex. J (Non-Final Office Action in Reexam No. 90/013,102) at A-150. In doing so, the PTO rejected all of the '725 patent claims asserted against Akzo in this litigation. As addressed hereinafter, the PTO regards product by process claims, such as those in the '725 patent as product claims and does not take into account process steps in determining patentability. *Id.* at A-153; MPEP § 2113. Further, in the current reexamination, the PTO maintains that the recitation of a temperature of intended use of a prior art composition does not render the old composition patentably new. MPEP § 2112(I) pp. 7-8.

Finally, Akzo maintains that many of the disputed claim terms and phrases are indefinite as the intrinsic evidence does not meaningfully define these terms, and thus fails to inform, with reasonable certainty, the person of ordinary skill of the scope of the claims that include these terms and phrases. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2122 (2014).



Akzo recognizes that the 35 U.S.C. § 112 indefiniteness issue is not the subject of this brief, but is raised only to point out how it makes it virtually impossible to understand the precise meaning or scope of many of the disputed claim terms. This problem of indefiniteness is compounded by the use of many of these disputed terms and phrases within a single claim. The terms that Akzo contends are indefinite under 35 U.S.C. § 112 are identified below, and Akzo intends to present its arguments for indefiniteness in its motion for summary judgment per this Court's practice. Where possible, and for construction purposes only, Akzo has provided constructions for these terms using the language of the patents, but given that the person of ordinary skill would not understand from the intrinsic evidence the scope of the component words in these proposed constructions, these proposed constructions remain indefinite.

## **II. LEGAL STANDARDS FOR CLAIM CONSTRUCTION**

The invention protected by a patent is defined by the "claims," which is where an inventor is required to "particularly point[] out and distinctly claim[]" the subject matter he or she regards as the invention. 35 U.S.C. § 112 (b). In litigation, "the court has the power and obligation to construe as a matter of law the meaning of language used in the patent claim[s]." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) *aff'd*, 517 U.S. 370 (1996). The starting point for this process is naturally the words of the claims themselves. *E.g.*, *Interactive Gift Exp., Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001) ("the analytical focus must begin and remain centered on the language of the claims themselves").

The words of a claim "are generally given their ordinary and customary meaning," as understood by a person of ordinary skill in the art as of the filing date of the patent application, unless the patentee provides a "special definition" elsewhere in the specification or prosecution history. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc); *see also*



*Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). As the Federal Circuit has explained, however, context matters. That is to say, “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent,” including both the “specification” (which is where the patentee is required to describe the invention and how to make and use it); *see* 35 U.S.C. §112, and the “prosecution history” (which is the record of the patentee’s interactions with the U.S. Patent Office). *See Phillips*, 415 F.3d at 1313; *see also*, *e.g., Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005) (“We cannot look at the ordinary meaning of the term in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history.”).

Because the specification includes the patentee’s description of the invention, it is “highly relevant” to interpreting claim terms and often is the “single best guide to the meaning of a disputed term.” *Phillips*, 415 F.3d at 1315-16 (quoting *Vitronics*, 90 F.3d at 1582). However, although the specification may be used as a guide for construing the meaning of the individual claim terms, limitations from the specification may not be imported into the claims “unless the patentee has demonstrated a clear intention to limit the claim scope....” *Arlington Indus. v. Bridgeport Fittings, Inc.*, 632 F.3d 1246, 1254 (Fed. Cir. 2011); *see also, e.g., Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1348 (Fed. Cir. 2009).

The prosecution history also forms an important part of the intrinsic record because it can often “inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Phillips*, 415 F.3d at 1317 (citation omitted). Similar to specification-induced limitations, however, the claims may not be limited



by statements made (or actions taken) in the prosecution history unless there is evidence of “a clear and unambiguous disavowal” of the broader claim scope. *See, e.g., Storage Tech. Corp. v. Cisco Sys. Inc.*, 329 F.3d 823, 833 (Fed. Cir. 2003); *see also Markman*, 52 F.3d at 980 (“Although the prosecution history can and should be used to understand the language used in the claims, it too cannot enlarge, diminish, or vary the limitations in the claims”) (quote omitted).

Beyond the above three types of intrinsic evidence—namely, the claims, the specification, and the prosecution history—, which are of primary importance in the claim construction process, certain “extrinsic” evidence, such as dictionary definitions, technical treatises, and expert testimony, may also be consulted. *Phillips*, 415 F.3d at 1317-18.

Patent claims must, when read in light of the specification and the prosecution history, inform with reasonable certainty, those skilled in the art about the scope of the invention. *Nautilus*, 134 S. Ct. at 2122. Failing to do so, a patent is invalid as indefinite. *Id.*; 35 U.S.C. § 112. As will be discussed in Akzo’s motion for summary judgment of invalidity for indefiniteness, a person of ordinary skill is unable to understand with reasonable certainty, numerous claim terms and phrases of the ’725 and ’466 patents, and thus the scope of the claims including these terms and phrases.

### **III. PROPOSED CONSTRUCTIONS OF DISPUTED CLAIM TERMS**

A summary of the parties’ positions regarding the claims terms is set forth in Exhibit A, attached hereto. Akzo’s proposed claim constructions, to the extent provided, are dictated by the claim language, specification and prosecution histories of the ’725 and ’466 patents. In contrast, plaintiffs’ proposed claim constructions violate *Markman* doctrine because they are at odds with the intrinsic evidence, and impermissibly require rewriting and altering the scope of the claims.

#### **A. “functionally dry”/“essentially water-free”**



Term	Plaintiffs' Proposed Construction	Akzo's Proposed Construction
<b>functionally dry</b>  and  <b>essentially water-free</b>  '725 Patent Claims: 1, 25  '466 Patent Claims: 12, 17	An asphalt binder composition that contains less water or moisture than is routinely used in conventional or known (i.e., foamed or emulsified) warm mixes.	These terms are indefinite under § 112, but for purposes of claim construction:  An asphalt binder composition that contains less water or moisture than is routinely used in conventional or known warm mixes.  '466 patent claim 12: A warm-mix paving composition that contains less water or moisture than is routinely used in conventional or known warm mixes.

Akzo maintains that "functionally dry" and "essentially water-free" are indefinite terms under 35 U.S.C. § 112, because the intrinsic evidence does not inform, with reasonable certainty, a person of ordinary skill in the art about the scope of the claims. *Nautilus*, 134 S. Ct. at 2122. For the purposes of claim construction, however, Akzo proposes these terms be construed to mean "an asphalt binder composition [or warm-mix paving composition] that contains less water or moisture than is routinely used in conventional or known warm mixes." The Court should adopt Akzo's proposed construction because it is the definition from the patent specification:

As used in the present application, each of the terms "functionally dry" or "essentially water-free" means or is intended to refer to an asphalt binder composition that contains less water or moisture than is routinely used in conventional or known warm mixes.

JA Ex. A at A-7 (col. 2, ll. 43-47); *see also Id.* at A-8 (col. 3, ll. 14-20).

Plaintiffs' proposed construction, on the other hand, requires that the asphalt binder composition contain less water or moisture than is routinely used in "foamed or emulsified warm mix asphalt binder compositions." However, the extraneous limitation added by plaintiffs is found nowhere in the claims, specification or prosecution histories of the patents. Instead, plaintiffs' proposed limitation is in direct contradiction with the patent disclosure which identifies "functionally dry" and "essentially water-free" as referring to a water content less than



that of “conventional or known warm mixes”, which is broader than plaintiffs’ proposed construction. *Id.* at A-7 (col. 2, l. 47).

While Akzo’s proposed construction is found in the specification, both proposed constructions, nevertheless, remain indefinite because the intrinsic evidence does not meaningfully define the phrases “routinely used in”, “known warm mixes” or “conventional...warm mixes” and does not convey to the person of ordinary skill the breadth of the water content in a “functionally dry” or “essentially water-free” composition. *Id.* at A-7-8 (col. 2, l. 43 – col. 3, l. 38).

Even so, as plaintiffs’ proposed construction injects narrowing, unsupported limitations into the claims in violation of *Markman* doctrine, it should be rejected in favor of Akzo’s proposed construction which is directly taken from the specification. *See Phillips*, 415 F.3d at 1313 (the person of ordinary skill in the art is deemed to read the claim term in the context of the claim and in the context of the patent specification); *Medrad*, 401 F.3d at 1318-20 (“A ‘claim construction that does not encompass a disclosed embodiment is...rarely, if ever, correct.’”).

#### **B. “non-foamed”**

<b>Term</b>	<b>Plaintiffs’ Proposed Construction</b>	<b>Akzo’s Proposed Construction</b>
<b>non-foamed</b>  ’725 Patent Claims: 1, 25  ’466 Patent Claims: 1, 12, 17, 20	not produced using a foaming process	asphalt binder that does not contain foam (’725 patent, claim 1; ’466 patent, claim 1).  warm-mix paving composition that does not contain foam (’466 patent, claim 12)

The term “non-foamed” is found only in the patent claims. *See, e.g.*, JA Ex. A at A-15 (amended claim 1, requiring “non-foamed asphalt binder”); JA Ex. B at A-30 (claim 1). As used in the ’725 and ’466 patents, the term “non-foamed”, when referring to asphalt binder plainly means an “asphalt binder that does not contain foam”; and in the ’466 patent, when referring to



the warm-mix paving composition, “non-foamed” plainly means a “warm-mix paving composition that does not contain foam”.

Plaintiffs proposed construction, “not produced using a foaming process,” violates *Markman* doctrine by introducing an unsupported, negative limitation and unrecited process step into the claims. The patent claims and the specification do not define or use the phrase “foaming process”. Further, the ’725 patent claims are directed to a product and do not set forth the process by which the asphalt binder is (or is not) made, and only require that the asphalt binder *be mixed with* lubricating additive(s) and aggregate. *See, e.g.*, JA Ex. A at A-15 (amended claim 1); JA Ex. B at A-30 (claim 1); *Interactive Gift Exp.*, 256 F.3d at 1331 (“the analytical focus must begin and remain centered on the language of the claims themselves”); *see also* JA Ex. B at A-30 (claim 12) with respect to “warm-mix paving composition”. Here, however, the patentee did not use “words or expressions of manifest exclusion or restriction” to limit “non-foamed” to binders or compositions “not produced using a *foaming* process” as opposed to *any* process or step that might result in the formation or presence of foam in the binder or composition. *See Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282, 1288 (Fed. Cir. 2009); *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004); *see also Abbott Labs. v. Lupin Ltd.*, 753 F.Supp.2d 382, 394–402 (D. Del. 2010) (rejecting construction since the imported negative limitation was improper absent a clear and unmistakable disclaimer).

Further, to the extent the phrase is even understood, a “foaming process” *per se* is not the only way a foamed binder or foamed warm-mix paving composition can be made. It was well-recognized in the art that *mere mixing* of a lubricating additive with binder and/or aggregate, as the ’725 and ’466 patent claims require, may produce foam. *See, e.g.*, Exhibit B, attached hereto, (U.S. Patent Publication 2005/0284333) at 0027, “mixing of phosphoric acid [a lubricating



additive of the '725 and '466 patents] with hot asphalt under typical blending conditions tends to result in foaming..."; *see also* JA Ex. A at A-8 (col. 4, ll. 62-66). Thus, there is no basis in the intrinsic evidence for adding the extraneous limiting language plaintiffs propose and the Court should adopt Akzo's proposed construction.

### C. Coating-related terms

Term	Plaintiffs' Proposed Construction	Akzo's Proposed Construction
<b>binder-coated</b>  '725 Patent Claims: 1, 25  '466 Patent Claims: 1, 12-13, 17	Plain and ordinary meaning, but if the Court requires a further construction:  having binder on all or substantially all surfaces	aggregate 100% coated with binder
<b>coated with binder and lubricating additive</b>  '725 Patent Claims: 1, 25	Plain and ordinary meaning, but if the Court requires a further construction:  having binder containing lubricating additive on all or substantially all surfaces	aggregate 100% coated with binder and lubricating additive
<b>to coat</b>  '466 Patent Claims: 1, 12, 17, 20	Plain and ordinary meaning, but if the Court requires a further construction:  to apply binder on all or substantially all surfaces	to apply binder to 100% of the surfaces
<b>coated</b>  '725 Patent Claims: 1, 25  '466 Patent Claims: 1, 12-13, 17	Plain and ordinary meaning, but if the Court requires a further construction:  having binder on all or substantially all surfaces	100% coated with binder
<b>coating</b>  '466 Patent Claims: 18	Plain and ordinary meaning, but if the Court requires a further construction:  applying binder on all or substantially all surfaces	applying binder on 100% of the surfaces

Akzo's proposed constructions for these five related terms require a 100% coating and are derived directly from the patent specification:

A 100% coating was achieved of the aggregate at this temperature...



...the coating of the aggregate was at 100%.

The coating was 100%...

JA Ex. A at A-11-12 (col. 9, ll. 3-4; col. 10, l. 21-22; col. 11, l. 65). The patent claims do not qualify the terms “binder-coated”, “coat”, “coated” or “coating” and thus do not contemplate an incomplete or partial coating of the aggregate. Further, the patent specification requires the aggregate to have a “thorough coating”:

For common binders used in the practice of the present invention, the visco-lubricity characteristics of the binder and lubricating agent composition affect the temperature **needed to provide thorough coating of the aggregate** and application and compaction of the asphalt and aggregate mixture according to the present invention.

JA Ex. A at A-13 (col. 13, ll. 23-28). A thorough coating is one that is “executed without negligence or omissions” and is “complete; perfect”. Exhibit C, attached hereto (Webster’s Encyclopedic Unabridged Dictionary of the English Language (2001) definition of “thorough”). It is “not superficial or partial”, but is “absolute”. Exhibit D, attached hereto (The New Oxford American Dictionary, 2nd ed. (2005) definition of “thorough”). Thus, the patent claims and specification plainly require a complete, 100% coating of the aggregate, as Akzo proposes.

Plaintiffs’ proposed constructions inject the words “substantially all surfaces”, but nowhere in the intrinsic evidence are these words found to describe “coating” as including anything less than complete coating. Further, “substantially all surfaces” is undefined in scope, and is in direct contradiction with the claims and the express requirement in the specification for a 100%, thorough coating. JA Ex. A at A-15-16 (claims); A-11-13 (col. 9, ll. 3-4; col. 10, ll. 21-22; col. 11, l. 65; col. 13, ll. 23-28); *Phillips*, 415 F.3d at 1315-16 (quoting *Vitronics*, 90 F.3d at 1582) (the specification is the “single best guide to the meaning of a disputed term”).

Akzo provides the only construction that is supported by the specification, and this term



should be construed using Akzo's construction.

**D. Warm-mix-related terms**

<b>Term</b>	<b>Plaintiffs' Proposed Construction</b>	<b>Akzo's Proposed Construction</b>
<b>warm mix temperature</b>  '725 Patent Claims: 1-2, 13-14, 20-23, 25-26, 37-38, 44-47  '466 Patent Claims: 1, 12-13, 17, 20	a temperature at least 30° F lower than used in conventional hot-mix asphalt	§ 112 indefinite.
<b>warm mix paving composition</b>  '466 Patent Claims: 12-13, 17, 19	an asphalt paving composition produced at a temperature that is at least 30° F lower than used in conventional hot-mix asphalt	No construction necessary. § 112 indefinite because of included indefinite term.
<b>warm mix asphalt paving composition</b>  '725 Patent Claims: 1-4, 9-10, 13-14, 19-23, 25-28, 33-34, 37-38, 43-48	an asphalt paving composition produced at a temperature that is at least 30° F lower than used in conventional hot-mix asphalt	No construction necessary. § 112 indefinite because of included indefinite term.
<b>warm mix asphalt binder composition</b>  '725 Patent Claims: 15, 39	This contains a typographical error. This phrase should be corrected to read, "warm mix asphalt paving composition" as defined above. <sup>3</sup>	§ 112 indefinite.
<b>warm mix temperature range</b>  '466 Patent Claim: 20	a temperature range of at least 30° F lower than used in conventional hot-mix asphalt binder	§ 112 indefinite.
<b>warm mix paving temperature</b> '466 Patent Claim: 20	a paving temperature at least 30° F lower than the paving temperature in conventional hot-mix asphalt	§ 112 indefinite.
<b>warm mix lubricated asphalt binder composition</b>  '466 Patent Claim: 20	a combination of asphalt binder and lubricating substance used to create asphalt paving composition at a warm mix temperature range	No construction necessary. § 112 indefinite because of included indefinite term.

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<sup>3</sup> This is an impermissible change in the meaning of the claims that, to the extent it can be made, must be done through a certificate of correction in the Patent Office.



Term	Plaintiffs' Proposed Construction	Akzo's Proposed Construction
<b>warm mix paving material</b>  '466 Patent Claims: 20-21	a paving material created by mixing aggregate with warm mix lubricated asphalt binder composition	No construction necessary. § 112 indefinite because of included indefinite term.

It is indisputable that the term “warm mix” is not defined by actual temperature bounds in the claims, specification or prosecution histories of the patents. Consequently, Akzo maintains that, except for the above-identified composition terms, each of the “warm mix” temperature-related terms is indefinite under 35 U.S.C. § 112, because the intrinsic evidence does not inform, with reasonable certainty, a person of ordinary skill in the art about the scope of the claims that include this phrase.

The term “warm mix asphalt paving composition” is a preamble term in the '725 patent, and need not be construed because it is defined by the language that follows the transition word “comprising”, and constitutes a binder, lubricating additive and aggregate. While this term is defined as a three component composition, it remains indefinite because of the indefiniteness of the phrases “functionally dry” and “essentially water free” modifying binder or the composition. *See*, section III.A., *supra*. Plaintiffs' proposed construction of this term is improper because it conflates the three-component asphalt composition with the subsequently claimed processing step for preparing the asphalt composition. In doing so, plaintiffs' construction eviscerates the later recited process step. *See e.g., Elekta Instrument S.A. v. O.U.R. Sci. Int'l*, 214 F.3d 1302 (Fed. Cir. 2000) (rejecting the district court's claim construction that would render a claim limitation superfluous).

Courts have held that in construing product or composition terms for the purpose of determining validity of the claims, process steps do not limit the plain meaning of the composition. *Takeda Pharma. Co. v. Teva Pharma. USA Inc.*, 542 F.Supp.2d 342, 349 (D. Del.



2008) (“The claim at issue is a product-by-process claim. The ‘wherein’ clause describes the pharmaceutical composition at least in part by the process in which it is made; the claim is, nevertheless, still directed to the ultimate product. The court declines to limit the plain meaning of ‘pharmaceutical composition’ absent more compelling intrinsic evidence.”) (citation omitted)); *see also Sandoz*, 566 F.3d at 1292 (for product-by-process claims, “determination of patentability is based on the product itself.” (citation omitted)).

Plaintiffs’ proposed constructions of the terms “warm mix paving composition” and “warm mix asphalt binder composition” are similarly improper because of the inclusion of a process limitation into a product term comprising components recited in the claims. JA Ex. B at A-31 (claim 20); *see also*, JA Ex. A at A-15-16 (claims 15, 39). As with the warm mix term above, plaintiffs’ construction of these terms also introduces the undefined term “conventional hot-mix asphalt”.

The temperature-containing terms “warm-mix temperature range” and “warm-mix paving temperature” (’466 patent, claim 20), and “warm mix temperature” (’725 and ’466 patent claims) are all process limitations not defined in the intrinsic evidence, and are thus indefinite. Plaintiffs’ proposed constructions require the person of ordinary skill to compare undefined properties, production and/or paving temperatures of an asphalt composition containing aggregate, lubricating additive and binder, with undefined properties or temperatures of a “conventional hot-mix asphalt”.

This Court should reject plaintiffs’ proposed constructions of these “warm mix” claim phrases because each effectively rewrites the claims and uses extraneous, undefined language that exacerbates the person of ordinary skill’s problem of discerning the metes and bounds of the claims. The claims do not use the phrase “conventional hot-mix asphalt” and there is no basis in



the intrinsic evidence for plaintiffs' insertion of that language into the claims. In addition, the intrinsic evidence does not define "conventional hot-mix asphalt" and thus it is indefinite. The patents indicate only that "hot-mix and warm-mix are on a continuum line of temperatures" (JA Ex. A at A-10 (col. 8, ll. 33-34)) and thus, just what is a "warm-mix" or a "hot-mix" in the context of the patent, is indefinite and should not be left to the patentee to manipulate as it sees fit to suit its case.

In addition, plaintiffs' proposed construction of "warm mix temperature range" must also be rejected for failure to define and give meaning to the claim term "range". Defining a temperature range requires the identification of an upper and lower temperature bound. Plaintiffs do not identify the temperature bounds for the range, and instead propose the further indefinite construction, "a temperature range of at least 30° F lower than used in conventional hot-mix asphalt." But, the temperature of conventional hot-mix asphalt is not addressed in the intrinsic evidence. To the extent even understood, plaintiffs' proposed construction only attempts, unsuccessfully, to identify the upper limit of the warm-mix temperature range. Thus, plaintiffs construe "warm mix temperature range" in the same fashion they construe "warm mix temperature" as a moving target, *i.e.*, "a temperature at least 30° F lower than used in conventional hot-mix asphalt") – and violate *Markman* doctrine by giving no effect to the claim term "range". *See Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950–51 (Fed. Cir. 2006). Because the intrinsic record does not provide any guidance as to what temperature these temperature-limiting term refer, these terms are indefinite.



**E. “is produced at and is at”**

<b>Term</b>	<b>Plaintiffs’ Proposed Construction</b>	<b>Akzo’s Proposed Construction</b>
<b>is produced at and is at</b>	Plain and ordinary meaning, but if the Court requires a further construction:	This term is indefinite under § 112, but for purpose of claim construction:
’725 Patent Claims: 1, 25	is produced at and, at some point after production, is at	is produced at and after production is at

Akzo maintains that “is produced at and is at” is indefinite under 35 U.S.C. § 112, but for the purposes of claim construction, Akzo proposes the phrase be construed to mean “is produced at and after production is at”. Akzo maintains that while both proposed constructions are indefinite, the Court should adopt Akzo’s proposed construction because it is the only construction that comports with the plain and ordinary meaning of the claim language.

During an earlier reexamination of the ’725 patent, plaintiffs amended claim 1 from “is produced at” to “is produced at *and is at*” for patentability purposes. The meaning of and reason for this amendment was not elucidated during the reexamination, and the patentee only noted:

Patent Owner, after further review of pending independent claims 1 and 25, now amends these claims to replace the currently recited phrase "the warm mix asphalt paving composition being at a warm mix temperature"<sup>4</sup> with the phrase-- wherein the warm mix asphalt paving composition is produced at and is at a warm mix temperature--.

Nonetheless, plaintiffs’ proposal adds further ambiguity to the claim by construing “and is at” to mean “at some point after production, is at”. To the extent plaintiffs’ proposed construction can even be understood, it appears to widen the scope of the claims to include both

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<sup>4</sup> As a result of an interview with PTO personnel during the reexamination of the ’725 patent, patentee changed the language of the claims from “is produced at” to “being at”. JA Ex. K at A-159 (January 7, 2012 Record of Examiner Interview); JA Ex. L at A-161 (January 23, 2013 Amdmt. and Response to Non-Final Office Action). Shortly thereafter, the patentee further modified the language to “is produced at and is at”. JA Ex. M at A-181, 188 (February 7, 2013 Second Supp. Amdmt.).



increases and decreases in the temperature of the asphalt composition *after* its production, followed by a return to the referenced “warm-mix temperature”. *Markman*, 52 F.3d at 980; *Nystrom v. TREX Co., Inc.*, 424 F.3d 1136, 1145-46 (Fed. Cir. 2005). The plain and ordinary meaning of this term is clear, the composition is produced at a temperature and is maintained at that production temperature – exactly as Akzo’s proposed construction requires. Thus, Akzo’s proposed construction should be adopted by the Court.

#### F. Comparison terms

Term	Plaintiffs’ Proposed Construction	Akzo’s Proposed Construction
<b>a comparison temperature needed to produce a comparison paving composition containing binder-coated aggregate without the lubricating additive</b>  ’725 Patent Claim: 25  and  <b>a comparison production temperature needed to produce a comparison paving composition containing binder-coated aggregate without the lubricating additive</b>  ’725 Patent Claim: 1  ’466 Patent Claims: 1, 12-13, 17	the minimum temperature needed to produce a comparable paving composition without the lubricating additive	These terms are indefinite under § 112, but for purpose of claim construction:  the minimum temperature needed to produce the paving composition without the lubricating additive
<b>a comparison paving temperature needed for proper paving of the comparison paving composition</b>  ’725 Patent Claims: 2, 26	the minimum temperature needed to properly pave a comparable paving composition produced without the lubricating additive	This term is indefinite under § 112, but for purpose of claim construction:  the minimum temperature needed to properly pave the paving composition without the lubricating additive

Akzo maintains that each of the aforementioned “comparison” terms is indefinite under 35 U.S.C. § 112 (*see* section III.D., *supra*, discussing hot-mix asphalt), but for the purposes of



claim construction, Akzo proposes the phrases be construed to mean “the minimum temperature needed to produce the paving composition without the lubricating additive” and “the minimum temperature needed to properly pave the paving composition without the lubricating additive”, respectively. The Court should adopt Akzo’s proposed constructions because they parallel the language of the claims and are consistent with the specification, whereas plaintiffs’ constructions impermissibly rewrite the claims. *Phillips*, 415 F.3d at 1315 (“[T]he best source for discerning the proper context of claim terms is the patent specification...”).

The parties agree that the comparison temperature of each claim phrase refers to “the minimum temperature needed”; and all agree that the “comparison paving composition” refers to the same paving composition without the lubricating additive. Plaintiffs propose, however, introducing the word “comparable” into the claims, to describe the paving composition without the lubricating additive. But plaintiffs’ additional limiting word is found nowhere in the intrinsic evidence. *Phillips*, 415 F.3d at 1319-20. It is not found in the claims; and nowhere in the specification or prosecution history are features identified for comparing one composition to another. Thus, plaintiffs’ proposed constructions should be rejected because the intrinsic evidence provides no guidance as to what constitutes a “comparable” composition.

#### **G. Lubricating terms**

<b>Term</b>	<b>Plaintiffs’ Proposed Construction</b>	<b>Akzo’s Proposed Construction</b>
<b>lubricating</b>  ’725 Patent Claims: 1, 9-10, 19, 25, 33-34, 43, 48  ’466 Patent Claims: 1, 4, 12-13, 17, 20	Plain and ordinary meaning, but if the Court requires a further construction:  allowing easier motion between two or more objects	No construction necessary.
<b>lubricated</b>  ’466 Patent Claim: 20	Plain and ordinary meaning, but if the Court requires a further construction:  having been mixed with a lubricating additive	No construction necessary.



<b>lubricating additive</b> '725 Patent Claims: 1, 9-10, 19, 25, 33-34, 43, 48 '466 Patent Claims: 1, 12-13, 17	Plain and ordinary meaning, but if the Court requires a further construction:  an additive that allows easier motion between two or more objects	No construction necessary.
<b>lubricating substance</b> '466 Patent Claim: 20	Plain and ordinary meaning, but if the Court requires a further construction:  a substance that allows easier motion between two or more objects	No construction necessary.
<b>lubricating substance consisting of an antistripping agent</b> '466 Patent Claim: 20	Plain and ordinary meaning, but if the Court requires a further construction:  a lubricating substance (defined above) that is an antistripping agent	No construction necessary.

No construction of these lubricating phrases is necessary. As the Federal Circuit has acknowledged, construction is only needed “when the meaning or scope of technical terms and words of art is unclear.” *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997); *Am. Patent Dev. Corp. v. Movielink, LLC*, 604 F.Supp.2d 704, 716 (D. Del. 2009) (declining to adopt a construction that “offers little to assist one of skill in the art in understanding the claims.”). Here, the patent specification expressly identifies the lubricating additives and substances that can be used in the asphalt compositions of the claims. *See* JA Ex. A at A-8-9. A-12 (col. 3, l. 33–col. 6, l. 32; col. 12, ll. 20-65).

While the patent specification and the claims attribute certain composition features to the use of lubricating additives, plaintiffs’ proposed “easier motion between two or more objects” is not one of those features, and is not supported by the intrinsic evidence. Plaintiffs’ proposed construction is thus not the ordinary meaning of the claim terms as used in the patents. *Phillips*, 415 F.3d at 1321 (“Properly viewed, the ‘ordinary meaning’ of a claim term is its meaning to the ordinary artisan after reading the entire patent”). Because the meanings of the words



“lubricating”, “lubricated”, “lubricating substance” and “lubricating additive” in the context of the patent are not ambiguous, there is no reason to further define them, or complicate the claims by rewriting them to include the new and unsupported words that plaintiffs propose. The law under *Markman* prohibits precisely this type of “reading in” of new claim limitations via the construction process. *Mantech Envtl. Corp. v. Hudson Envtl. Servs., Inc.*, 152 F.3d 1368, 1374 (Fed. Cir. 1998) (“If the written description supports the definition of the term that is apparent from the claim limitation, then reading in a further limiting definition would be improper.”).

#### H. Viscosity terms

Term	Plaintiffs’ Proposed Construction	Akzo’s Proposed Construction
<b>viscosity modifier</b> ’466 Patent Claims: 1, 12, 17	a substance that stabilizes viscosity as temperature changes	§ 112 indefinite.
<b>dispersant viscosity modifier</b> ’466 Patent Claims: 1, 12, 17	a substance that stabilizes viscosity as temperature changes and disperses debris within a liquid	§ 112 indefinite.

Akzo maintains that the each of the aforementioned “viscosity” phrases is indefinite under 35 U.S.C. § 112, because the intrinsic evidence does not inform, with reasonable certainty, a person of ordinary skill in the art about the scope of the claims. Akzo adopts the arguments concerning the viscosity terms as set forth in the Opening *Markman* Brief of Arr-Maz, filed concurrently in 13-cv-01070.

#### I. “asphalt binder”

Term	Plaintiffs’ Proposed Construction	Akzo’s Proposed Construction
<b>asphalt binder</b> ’725 Patent Claims: 1, 9-10, 15, 19, 25, 33-34, 39, 43 ’466 Patent Claims: 1, 4, 12, 17-18, 20	Plain and ordinary meaning.	Plain and ordinary meaning.

Akzo adopts the arguments concerning “asphalt binder” as set forth in the Opening *Markman* Brief of Arr-Maz, filed concurrently in 13-cv-01070.



**J. “suitable aggregate”**

<b>Term</b>	<b>Plaintiffs’ Proposed Construction</b>	<b>Akzo’s Proposed Construction</b>
<b>suitable aggregate</b>  '466 Patent Claim: 20	aggregate suitable for use in the warm mix paving composition	§ 112 indefinite.

Akzo maintains that “suitable aggregate” is indefinite under 35 U.S.C. § 112, because the intrinsic evidence does not inform, with reasonable certainty, a person of ordinary skill in the art about the scope of the claims.

Claim 20 of the '466 patent requires “combining the warm mix lubricated asphalt binder composition with a suitable aggregate” and “form[ing] a warm mix paving material”. JA Ex. B at A-31. Plaintiffs’ proposed construction of “suitable aggregate” as “aggregate suitable for use in the warm mix paving composition” essentially repeats the language of the claim and “contribute[s] nothing but meaningless verbiage to the definition of the claimed invention.” *See Harris Corp. v. IXYS Corp.*, 114 F.3d 1149, 1152 (Fed. Cir. 1997). Thus, plaintiffs’ proposed construction fails to aid the person of ordinary skill in the art of the meaning of “suitable aggregate”, and is as indefinite as the underlying claim phrase for failure to inform that person of the metes and bounds of the claims. Therefore, this Court should reject plaintiffs’ proposed construction.

**IV. CONCLUSION**

For the foregoing reasons, Akzo respectfully requests that the Court adopt its straightforward, supported constructions, and to reject plaintiffs’ constructions.



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Respectfully submitted,

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